ALEXIUM

ALEXIUM INTERNATIONAL GROUP LIMITED

HALF-YEAR REPORT
For the Six Months Ended 31 December 2023
PRESENTED IN US DOLLARS

ABN 91 064 820 408

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ALEXIUM INTERNATIONAL GROUP LIMITED
ABN 91 064 820 408

This information is provided to the Australian Securities Exchange under ASX Listing Rule 4.2A (3). This information should be read in conjunction with the most recent annual financial report.

Current reporting period:	01 July 2023 to 31 December 2023
Previous reporting period:	01 July 2022 to 31 December 2022

Amounts in US$				
Revenue from ordinary activities	down	(19.5%)	to	2,766,427
Loss from ordinary activities for the period after tax attributable to members	down	(17.4%)	to	(1,962,251)
Net loss for the period attributable to members	down	(17.4%)	to	(1,962,251)

Dividends	**Amount per security**	**Franked amount per security**
Interim dividend declared this period	Nil	Nil
Interim dividend declared and paid in previous corresponding period	Nil	Nil

Commentary on Results for the Period

Revenue from ordinary activities decreased over the prior year by 19.5% due to a decline in the US retail market conditions which negatively impacted bedding market sales. Gross margin increased by 6.7 percentage points over the same period prior year due to a favourable customer/product mix, improved operating efficiencies and negotiated reductions in some raw material costs. The loss before finance costs of $1.3M was a 16.9% decrease versus the comparative period primarily due to improved margins and a reduction in operating expenses offset in part by lower sales volume. Operating expenses reduced by 11.6% mainly due to headcount reductions in sales and research and development costs along with reduced external professional services fees, offset in part by reduced capitalization of internal research and development costs. Total net loss for the period of $2.0M was a 17.4% decrease over the comparative period. The result was impacted by a loss on the derivative of $0.1M.

Net Tangible Assets	**31-Dec-23**	**31-Dec-22**
Net Tangible Asset backing per ordinary shares	US (0.71) cents	US (0.34) cents

Controlled entities acquired or disposed of:
There were no entities acquired or disposed of during the current reporting period.

Additional dividend/distributions information
Not applicable

Dividend/distribution reinvestment plans
None

Associates and Joint Venture entities
None

Your directors submit their report for the half-year ended 31 December 2023.

The names of the Group's Directors in office during the half-year and until the date of this report are set out below. Directors were in office for this entire period unless otherwise stated.

Ms Rosheen Garnon (until 02 November 2023)
Brigadier General Stephen Cheney (until 31 October 2023)
Mr Simon Moore
Dr Paul Stenson
Dr Bob Brookins
Mr Carl Dennis
Mr William Blackburn

RESULTS AND REVIEW OF OPERATIONS

PRINCIPAL ACTIVITIES
The Group's revenue is generated from the development and sale of innovative and proprietary high-performance materials to various partners in the textile industry. The Group's proprietary technologies, Alexicool®, BioCool® Eclipsys®, Alexiguard™ and Alexiflam®, serve the phase change material (PCM) and flame retardant (FR) market opportunities where Alexium's product differentiation and technical service model creates distinction from others in the market.

OPERATING AND FINANCIAL REVIEW
Revenues were down 19.5% versus the comparative period due to a decline in US retail market conditions negatively impacting bedding market sales as consumer confidence weakened amid ongoing inflationary concerns. Gross margin increased by 6.7 percentage points over the same period prior year due to a favourable customer/product mix, improved operating efficiencies and negotiated reductions in some raw material costs.

Operating expenses at $2.5M were down 11.6% versus the comparative period mainly due to headcount reductions in sales and research and development and a decreased utilisation of external professional services. The loss before financing costs decreased by 16.9% to $1.3M from the same period prior year with the decrease in sales offset by an increase in gross profit offset and reduced operating expenses. The net loss attributable to members for the period was $2.0M which decreased $0.4M from a $2.4M net loss in the comparative period. The result included a $0.1M loss on the embedded derivative within the outstanding convertible note.

The period was highlighted by the continued refinement of the Company's proprietary technologies and the development of new applications for these technologies. Success was achieved in areas of significant customer interest, such as a more environmentally friendly FR chemistry and the application of PCM in packaging solutions, and while there is a lead time in turning these advances into revenue, the Board is excited about the new market opportunities resulting from these advances.

On 27 December 2023, the Company announced its intentions to enter a capital raise and refinancing transaction ("Transaction"), pending shareholder approval. The capital raise will provide a minimum amount of new equity of A$4.0 million (A$2.0 million already received via the Bridging Loan and the remaining A$2.0 million to be received in additional cash) via a fully underwritten entitlement offer and placement. In addition, the Company's existing A$7.0 million convertible note and accrued interest thereon will be retired in exchange for shares. Related to the Transaction, Colinton Capital Partners (CCP) provided a bridging loan of A$2.0 million (US$1.3 million) to the Company to allow it to continue to pursue a number of significant near-term opportunities while the Company seeks the necessary shareholder approvals for the Transaction. This bridging loan matures on 23 June 2025 and carries an initial interest rate of 15%. If the capital raise transaction is approved, the bridging loan principal will be applied to meet Colinton Capital Partners' commitments with respect to the equity raise. If the Transaction is not approved, the interest rate on the bridging loan will increase to 20% effective 01 July 2024.

As of 31 December 2023, the cash position was $1,756,073 (30 June 2023: $513,277) and the Group had 661,210,753 ordinary shares on issue (30 June 2023: 651,389,760).

SUBSEQUENT EVENTS
There has not arisen any item, transaction, or event of a material and unusual nature, which in the opinion of the Directors of the Company, is likely to significantly affect the operations of the Company, the results of those operations, or the state of affairs of the Company, in future financial years.

AUDITOR'S INDEPENDENCE DECLARATION

The auditor's independence declaration is included on the following page dated this 27th day of February 2024 and was signed in accordance with a resolution of the Directors.

William Blackburn
Chief Executive Officer
27 February 2024

GrantThornton

Grant Thornton Audit Pty Ltd
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Sydney NSW 2000
Locked Bag Q800
Queen Victoria Building NSW 1230

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Auditor's Independence Declaration

To the Directors of Alexium International Group Limited

In accordance with the requirements of section 307C of the *Corporations Act 2001*, as lead auditor for the review of Alexium International Group Limited for the half-year ended 31 December 2023. I declare that, to the best of my knowledge and belief, there have been:

a no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and

b no contraventions of any applicable code of professional conduct in relation to the review.

Grant Thornton

Grant Thornton Audit Pty Ltd
Chartered Accountants

M R Leivesley
Partner – Audit & Assurance

Sydney, 27 February 2024

www.grantthornton.com.au
ACN-130 913 594

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE SIX MONTHS ENDED 31 DECEMBER 2023

	Note	31-Dec-23 US$	31-Dec-22 US$
Revenue		**2,766,427**	3,435,234
Cost of sales		**(1,540,501)**	(2,141,626)
Gross Profit		**1,225,926**	1,293,608
Other Income		**50**	-
Administrative expenses		**(1,786,624)**	(1,926,054)
Sales and marketing expenses		**(156,888)**	(425,085)
Research and development costs		**(446,667)**	(332,409)
Other expenses		**(107,939)**	(141,465)
Operating expenses		**(2,498,118)**	(2,825,013)
Loss before finance costs		**(1,272,142)**	(1,531,405)
Interest expense		**(558,582)**	(462,741)
Gain/ (Loss) on embedded derivative	5	**(137,584)**	192,307
Gain/ (Loss) on debt extinguishment	4	**-**	(576,374)
Interest earned		**6,057**	3,609
Total finance costs		**(690,109)**	(843,199)
Loss before tax		**(1,962,251)**	(2,374,604)
Tax expense		**-**	-
Loss for the year after tax		**(1,962,251)**	(2,374,604)
Other comprehensive income - Exchange differences on translation of foreign operations which may subsequently be reclassified to profit or loss		**(185,566)**	11,682
Total comprehensive loss for the year		**(2,147,817)**	(2,362,922)
Loss for the year attributable to members of the group		**(1,962,251)**	(2,374,604)
Total comprehensive loss for the year attributable to members of the group		**(2,147,817)**	(2,362,922)

This consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes to the financial statements.

	Note	31-Dec-23 US$	30-Jun-23 US$
Current Assets			
Cash and cash equivalents		**1,756,073**	513,277
Trade and other receivables		**544,645**	1,046,950
Inventories		**445,384**	824,981
Other current assets		**48,988**	87,199
Total Current Assets		**2,795,090**	2,472,407
Non-Current Assets			
Other financial assets		**16,671**	17,871
Property, plant and equipment		**613,744**	730,530
Intangible assets	3	**1,594,874**	1,695,365
Right of use asset		**410,433**	465,157
Total Non-Current Assets		**2,635,722**	2,908,923
Total Assets		**5,430,812**	5,381,330
Current Liabilities			
Trade and other payables		**585,364**	990,296
Lease liabilities		**146,372**	136,498
Borrowings	4	**599,538**	161,345
Total Current Liabilities		**1,331,274**	1,288,139
Non-Current Liabilities			
Borrowings	4	**5,788,071**	3,787,189
Derivative liability	5	**862,460**	688,364
Lease liabilities		**525,068**	600,774
Total Non-Current Liabilities		**7,175,599**	5,076,327
Total Liabilities		**8,506,873**	6,364,466
Net Assets		**(3,076,061)**	(983,136)
Equity			
Contributed equity	6	**66,721,052**	66,610,771
Reserves		**(1,509,072)**	(974,429)
Accumulated losses		**(68,288,041)**	(66,619,478)
Total Equity		**(3,076,061)**	(983,136)

This consolidated statement of financial position should be read in conjunction with the accompanying notes to the financial statements.

	Contributed Equity US$	Shares to be Issued Reserve US$	Options & Warrants Reserve US$	Performance Rights Reserve US$	Foreign Currency Translation Reserve US$	Consolidated Accumulated Losses US$	Total US$
Balance at 1 July 2023	**66,610,771**	**77,987**	**-**	**551,996**	**(1,604,412)**	**(66,619,478)**	**(983,136)**
Loss for the period	**-**	**-**	**-**	**-**	**-**	**(1,962,251)**	**(1,962,251)**
Foreign currency translation	**-**	**-**	**-**	**-**	**(185,566)**	**-**	**(185,566)**
Total comprehensive income / (loss)	**-**	**-**	**-**	**-**	**(185,566)**	**(1,962,251)**	**(2,147,817)**
Expiration of outstanding SARs	**-**	**-**	**-**	**(293,688)**	**-**	**293,688**	**-**
Share appreciation rights expense	**-**	**-**	**-**	**(15,471)**	**-**	**-**	**(15,471)**
Shares to be issued in lieu of salary	**-**	**70,363**	**-**	**-**	**-**	**-**	**70,363**
Shares issued in lieu of salary	**110,281**	**(110,281)**	**-**	**-**	**-**	**-**	**-**
Balance at 31 December 2023	**66,721,052**	**38,069**	**-**	**242,837**	**(1,789,978)**	**(68,288,041)**	**(3,076,061)**

Balance at 1 July 2022	66,523,851	-	83,934	444,750	(1,724,383)	(63,752,468)	1,575,684
Loss for the period	-	-	-	-	-	(2,374,604)	(2,374,604)
Foreign currency translation	-	-	-	-	11,682	-	11,682
Total comprehensive income / (loss)	-	-	-	-	11,682	(2,374,604)	(2,362,922)
Capital raising costs	(925)	-	-		-	-	(925)
Share appreciation rights expense	-	-	-	180,487	-	-	180,487
Performance rights exercised	9,076	-	-	(9,076)	-	-	-
Shares to be issued in lieu of salary	79,750	-	-	-	-	-	79,750
Balance at 31 December 2022	66,611,752	-	83,934	616,161	(1,712,701)	(66,127,072)	(527,926)

This consolidated statement of changes in equity should be read in conjunction with the accompanying notes to the financial statements.

	Note	31-Dec-23 US$	31-Dec-22 US$
Cash flow from operating activities			
Receipts from customers and other income		**3,256,941**	2,713,301
Payments to suppliers and employees		**(3,623,843)**	(3,837,470)
Interest received		**6,057**	3,608
Interest and other costs of finance paid		**(33,921)**	(67,685)
Goods & services tax received		**22,185**	14,709
Net cash flows (used in) operating activities		**(372,581)**	(1,173,537)
Cash flows from investing activities			
Purchase of property, plant, and equipment		**-**	(2,994)
Payments for development costs		**(116,064)**	(193,162)
Net cash flows (used in) investing activities		**(116,064)**	(196,156)
Cash flows provided by financing activities			
Proceeds from borrowings		**3,214,850**	2,645,121
Proceeds on substantial modification of convertible note		**-**	1,022,460
Proceeds from bridging loan	4	**1,368,000**	-
Repayment of borrowings		**(2,851,793)**	(2,210,595)
Transaction costs related to issues of shares		**-**	(937)
Net cash flows (used in) financing activities		**1,731,057**	1,456,049
Net (decrease) in cash and cash equivalents		**1,242,412**	86,356
Cash and cash equivalents at beginning of year		**513,277**	1,027,095
Effect of exchange rate changes on cash and cash equivalents		**384**	(10,984)
Cash and cash equivalents at end of year		**1,756,073**	1,102,467

This consolidated statement of cash flows should be read in conjunction with the accompanying notes to the financial statements.

1. CORPORATE INFORMATION

The consolidated financial statements of Alexium International Group Limited and its subsidiaries (collectively, the Group) for the six-months ended 31 December 2023 were authorised for issue in accordance with a resolution of the directors on 24 February 2023. Alexium International Group Limited is incorporated and domiciled in Australia and is publicly traded on the Australian Securities Exchange under the trading symbol AJX. These financial statements include the consolidated financial statements and notes of Alexium International Group Limited and its controlled entities ('Group' or 'Company').

These financial statements are presented in US Dollars which align with the Company's financial reporting and with the nature of the business operations which primarily occur in the United States as described in the Directors' Report.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of preparation

The consolidated half-year financial statements for the six-months ended 31 December 2023 are general-purpose financial reports, which have been prepared in accordance with the requirement of the Corporations Act 2001 and AASB 134 Interim Financial Reporting. The consolidated half-year financial statements have been prepared on a historical cost basis, except where stated. For the purpose of preparing the consolidated half-year financial statements, the half-year has been treated as a discrete reporting period.

The interim financial report does not include full disclosures of the type normally included in an annual financial report. Accordingly, it is recommended that this interim financial report be read in conjunction with the annual financial report for the year ended 30 June 2023 and any public announcements made by the Group during the interim reporting period in accordance with the continuous disclosure requirements arising under the Corporations Act 2001.

The financial statements have been prepared on an accrual basis and are based on historical costs modified, where applicable by the measurement at fair value of selected non-current assets, financial assets, and financial liabilities. The presentation is in United States Dollars to correspond with the primary currency that influences sales price of goods, labour, materials, and costs of providing goods for sale.

(b) New and amended standards adopted by the Group in this financial report

Several new standards are effective for annual periods beginning after 1 January 2024 and earlier application is permitted; however, the Company has not early adopted the new or amended standards in preparing these consolidated financial statements. For future reporting purposes, the Company has reviewed the new and amended standards and they are either not applicable to the Company or are not expected to have a significant impact on the Company's consolidated financial statements.

(c) Significant accounting judgements, estimates and assumptions

Fair value of financial instruments
When the fair values of financial assets and financial liabilities recorded in the statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including the discounted cash flow (DCF), Black-Scholes option pricing models and Monte Carlo option valuation model. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. The assessed fair values of the embedded derivatives were determined using a Black-Scholes option pricing model which approximates the results that would have been achieved by using a binomial lattice. The model considers the expected price volatility of the underlying instrument, expected dividend yield and the risk-free interest rate. Changes in assumptions in relation to these factors could affect the reported fair value of financial instruments.

Intangible Assets
The Company assesses at initial recognition whether an internally developed asset has met the recognition requirements established in AASB 138 and measures the direct and indirect costs of development using several estimates and assumptions. After capitalisation, management monitors whether the recognition requirements continue to be met and whether there are any indicators that capitalised costs may be impaired. For assets not yet ready for use, management estimates the fair value less costs of disposal (FVLCD). To estimate the FVLCD, management applies the cost replacement model whereby an estimate is made of all costs required in current market conditions to produce a similar product. With respect to ready-for-use assets, management estimates the recoverable amount of each asset or cash-generating unit based on expected future cash flows and uses an interest rate to discount them. Estimation uncertainty relates to assumptions about future operating results, the determination of a suitable discount rate, and the appropriate classification of cash generating units. See Note 3 for further disclosures.

(d) Going Concern

These financial statements have been prepared on going concern basis, which contemplates the continuity of normal business activities and the realisation of assets and settlement of liabilities in the ordinary course of business.

The Group incurred a loss after tax attributable to members of $1,962,251 (2022: $2,374,604). The Group incurred negative cash flows from operations and investing activities of $488,645 for the period ended 31 December 2023 (2022: negative $1,369,693). However, the Company received an inflow of cash of $1,368,000 from a bridging loan provided by Colinton Capital Partners in conjunction with a proposed capital raise and refinancing transaction which is subject to shareholder approval (see Note 4). The bridging loan gives the Company the funding for its working capital needs and growth strategy while it seeks shareholder approval for the capital raise and refinancing transactions.

The Group has current assets of $2,795,090 (30 June 2023: $2,472,407) which exceed current liabilities of $1,331,274 (30 June 2023: $1,288,139) and cash of $1,756,073 at the end of the period (30 June 2023: $513,277).

The Directors believe that it is reasonably foreseeable that the Group will continue as a going concern and be able to pay its debts as and when they fall due after consideration of the following mitigating matters:

- the Group has performed a cash flow forecast and determined that it has or will have access to adequate cash resources to fund its operations for at least 12 months from the date of approval of these financial statements
- the Group expects to have continued access to working capital facilities to support cash needs and expected growth in revenues
- the Group expects to successfully convert current commercialisation efforts to future revenue and cash receipts to support the fixed base of expenditures
- on 27 December 2023, the Group announced its plans to refinance its outstanding debt for equity and raise a minimum of A$4million (A$2 million in cash already provided in the form of the bridging loan) in equity, pending shareholder approval.

Should the above not eventuate or are not able to be resolved in the Group's favour, then there will be a material uncertainty regarding the ability of the Group to continue as a going concern and pay its debts and obligations as and when they become due and payable.

If the Group is unable to continue as a going concern, it may be required to realise its assets and extinguish its liabilities other than in the normal course of business at amounts different from those stated in the financial report. These financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or to the amounts and classifications of liabilities that might be necessary should the Group not continue as a going concern.

3. INTANGIBLE ASSETS

Cost	
Balance at 30 Jun 2023	4,297,207
Additions	**124,764**
Disposals	**-**
Balance at 31 Dec 2023	**4,421,971**
Amortisation and impairment	
Balance at 30 Jun 2023	2,601,842
Amortisation	**225,255**
Disposals	**-**
Balance at 31 Dec 2023	**2,827,097**
Net book value	
Balance at 30 Jun 2023	1,695,365
Balance at 31 Dec 2023	**1,594,874**

Intangible assets represent development costs capitalised in the development of new high-performance materials and technologies. All of the intangible assets are amortising and in production as at 31 December 2023. Consequent to an assessment of indicators of impairment carried out by the management and Directors of the Group, management have concluded that none of the intangible assets portfolio have any indicators of impairment.

4. BORROWINGS

	31-Dec-23	30-Jun-23
Current Borrowings:		
Line of credit	**599,538**	161,345
Total	**599,538**	161,345
Non-current borrowings:		
Convertible note carrying value	**3,802,147**	3,505,070
Bridging Loan	**1,368,000**	-
Accrued interest	**617,924**	282,119
Total	**5,788,071**	**3,787,189**

(a) Line of credit

The Company entered into a three-year line of credit agreement on 05 April 2022 with Alterna Capital Solutions to provide working capital funding. The facility is a three-year $3.0M asset-based facility which can be increased to $5.0M with the approval of the lender. The borrowing base of the line of credit consists of 90% of eligible accounts receivable plus a calculated portion of inventory which, among other factors, will not exceed 50% of eligible inventory.

The funds usage interest rate at execution of the agreement was 8.25% and adjusts with upward changes in the Wall Street Journal Prime Rate. The applicable interest rate on 31 December 2023 was 13.5%.

Costs incurred to obtain financing are deferred and amortised on a straight-line basis over the term of the financing facility. The unamortised deferred financing costs are shown as a reduction of the carrying value of the related debt. The amortisation expense was $10K for the period ended 31 December 2023 (2022: 10K) and is included in interest expense.

	31-Dec-23	30-Jun-23
Line of credit liability	**623,608**	195,043
Unamortised deferred financing costs	**(24,070)**	(33,698)
Net carrying value of line of credit	**599,538**	**161,345**

(b) Convertible note

On 28 December 2022, the Company amended and restated its existing convertible note with an existing shareholder. The proceeds from the amended funding were first used to pay down the original loan facility which was due to expire on 24 December 2023 and carried a face value of $3.5M (A$5.1M) plus accrued interest of $0.2M (A$0.4M). In conjunction with this amendment, the shareholder agreed to provide an additional $1.0M (A$1.5M) to support the business through the next phase of its growth and development. The restated note has a face value of $4.8M (A$7.0M), a three-year term and a 10.0% annual interest rate with coupon interest payments due quarterly. The Company may elect to defer interest payments in exchange for an additional 2% in interest payable to the lender. The note is convertible into ordinary shares at the holder's discretion and with shareholder approval at a conversion price of A$0.03/share.

The previously and newly issued convertible notes are considered hybrid instruments with host and derivative liability components. When initially recorded, the derivative is measured at fair value and separated from the host liability (also refer to note 5).

The change in terms of the amended and restated debt was considered significant and, as such, the Company treated the transaction as a substantial modification of an existing arrangement and thus the previously issued convertible note (along with the derivative liability component) was considered extinguished and derecognised from the financial statements. The newly issued convertible note was measured initially at fair value and then subsequently at amortised cost in accordance with AASB 9. The difference in values of the extinguished debt and newly issued convertible note has been recognised as a loss through profit or loss.

	31-Dec-23	30-Jun-23
Gain/ (Loss) on debt extinguishment	**-**	(576,374)

The convertible notes have been measured at amortised cost in accordance with AASB 9. The Company allocates interest payments over the term of the borrowings at a constant rate on the carrying value. The carrying balance over the remaining life of the facility will increase to the principal balance.

	31-Dec-23	30-Jun-23
Convertible note carrying value	**3,802,147**	3,505,070
Remaining amortisation of effective interest	**926,584**	1,223,661
Foreign currency exchange rate impact	**59,269**	(87,731)
Principal balance outstanding	**4,788,000**	4,641,000

(c) Bridging loan

On 27 December 2023, the Company announced its intentions to enter into a capital raise and refinancing transaction ("Transaction"), pending shareholder approval. The Transaction will provide a minimum equity of A$4 million (US$2.7 million) via a fully underwritten entitlement offer and placement. In addition, the Company's existing A$7.0 million (US$ 4.8 million) convertible note and accrued interest thereon will be retired in exchange for shares. Related to the Transaction, Colinton Capital Partners (CCP) provided a bridging loan of A$2.0 million (US$1.4 million) to the Company to allow it to continue to pursue a number of significant near-term opportunities while the Company seeks the necessary shareholder approvals for the Transaction. This bridge loan matures on 23 June 2025 and carries an initial interest rate of 15%. If the capital raise transaction is approved, the bridge loan principal will be applied to meet Colinton Capital Partners' commitments with respect to the equity raise. If the Transaction is not approved, the interest rate on the bridging loan will increase to 20% effective 01 July 2024.

5. DERIVATIVE LIABILITY

The current and previous convertible notes are considered hybrid instruments with host and derivative liability components. When initially recorded, the derivative is measured at fair value and separated from the host liability. Subsequently, changes in value are recorded in profit or loss upon revaluation.

	31-Dec-23	30-Jun-23
Derivative liability	**862,460**	688,364

On extinguishment of the previously issued convertible note (see Note 4), the derivative liability component was also derecognised. Therefore, the gain on embedded derivative in profit and loss in the prior period included both the gain on revaluation of the derivative liability during the period and the gain on the derecognition of the derivative related to the old convertible note.

	31-Dec-23	31-Dec-22
Gain/(Loss) on embedded derivative due to changes in fair valuation	**(137,584)**	152,205
Gain/(Loss) on embedded derivative due to derecognition of convertible note	-	40,102
Total Gain/(Loss) on embedded derivative	**(137,584)**	**192,307**

The fair value of the derivative liability has been valued using a Black-Scholes option pricing model which approximates a Monte Carlo binomial lattice simulation. Pricing model inputs of the current derivative include spot price (A$0.014), risk-free rate (3.896%), remaining term (2 years) and volatility (105.65%).

6. CONTRIBUTED EQUITY

	31-Dec-23 Shares	31-Dec-22 Shares	**31-Dec-23 $**	31-Dec-22 $
(a) Issued capital				
Ordinary shares fully paid	**661,210,753**	645,527,072	**66,721,052**	66,611,752
(b) Movement in share capital				
Balance at 01 July	**651,389,760**	645,256,590	**66,610,771**	66,523,851
Costs of capital raising	**-**	-	**-**	(925)
Conversion of performance rights	**-**	270,482	**-**	9,076
Shares to be issued in lieu of salary	**-**	-	**-**	79,750
Shares issued in lieu of salary	**9,820,993**	-	**110,281**	-
Balance at 31 December	**661,210,753**	645,527,072	**66,721,052**	66,611,752
(c) Movements in performance rights				
Balance at 01 July	**-**	270,482	**-**	9,076
Exercised	**-**	(270,482)	**-**	(9,076)
Balance at 31 December	**-**	-	**-**	-

(d) Share appreciation rights

	Grant Date	Vesting Date	Opening Price (AUD)	Full Vesting Target Price (AUD)	FV at Grant (AUD)	Open Balance 01-Jul-23	Granted	Expired	Forfeited	Outstanding
FY 24	**15-Nov-23**	**30-Sep-26**	**0.015**	**0.105**	**0.002**		**19,308,495**	**-**	**-**	**19,308,495**
FY 23	23-Sep-22	23-Sep-25	0.020	0.171	0.005	4,288,274	-	-	(405,123)	3,883,151
FY 23-ELT	16-Nov-22	23-Sep-25	0.030	0.171	0.005	18,690,988	-	-	(5,473,052)	13,217,936
CEO Award	16-Nov-22	Various	0.030	0.150	0.006	16,131,415	-	-	-	16,131,415
FY 22	23-Sep-21	23-Sep-24	0.076	0.148	0.038	15,253,716	-	-	(5,978,305)	9,275,411
FY 21	23-Sep-20	23-Sep-23	0.071	0.139	0.032	12,910,043	-	(12,910,043)	-	-
Total						**67,274,436**	**19,308,495**	**(12,910,043)**	**(11,856,480)**	**61,816,408**

At the discretion of the Board, the Company may make offers and issue share appreciation rights (SARs) to eligible individuals under the Plan. Unless the Board determines otherwise, the award is calculated by multiplying a defined percentage by the fixed component of compensation.

The objective of the plan is to:
(a) provide an incentive and to reward, retain and motivate participants;
(b) recognise the abilities, efforts, and contributions of participants to the performance and success of the Group; and
(c) provide participants with the opportunity to acquire or increase their ownership interest in the Group.

Vested Rights:
(a) Participants are entitled to the amount by which the closing share price exceeds the opening share price.
(b) Shares will be issued in the amount equal to the closing share price less opening share price divided by closing share price then multiplied by the vested and exercised SARs.

Vesting Conditions:
The Board sets the vesting conditions for each SAR plan year using the following as general guidelines.
(a) A compounded annual growth rate ("CAGR") on the opening share price over the three-year term. The opening price is the 20-day volume weighted average price ("VWAP") from the issuance date of the annual report. Partial vesting will begin at the approved minimum CAGR at an approved percentage of the total SAR grants. Vesting from the minimum CAGR to the fully vested CAGR will occur on a linear scale between the minimum percentage of the total SAR grants and 100% of the total SAR grants.
(b) Continued employment through the vesting date.

(e) Share warrants

	Grant date	Exercise price	Expiry date	Balance at start of year	Granted	Exercised	Expired	Balance at reporting date
31-Dec-2023	31-Dec-19	$0.06	29-Mar-23	-	-	-	-	-
31-Dec-2022	31-Dec-19	$0.06	29-Mar-23	**3,829,787**	-	-	-	**3,829,787**

(f) Terms and conditions of contributed equity
Holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at shareholders' meetings. In the case of a liquidation of the Company, ordinary shareholders rank after all other shareholders and creditors and are fully entitled to any proceeds of liquidation.

(g) Capital management
The Company's objectives in managing capital are to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns to shareholders and benefits for the stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

7. COMMITMENTS AND CONTINGENCIES

(a) Commitments

There have been no material changes to the commitments as disclosed in the annual report to 30 June 2023

(b) Contingencies

There have been no material changes to the contingencies as disclosed in the annual report to 30 June 2023

8. SUBSEQUENT EVENTS

There has not arisen any item, transaction, or event of a material and unusual nature, which in the opinion of the Directors of the Company, is likely to significantly affect the operations of the Company, the results of those operations, or the state of affairs of the Company in future financial years.

The Directors of the Company declare that:

1. The financial statements, comprising the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of financial position, consolidated statement of cash flows, consolidated statement of changes in equity and accompanying notes, are in accordance with the Corporations Act 2001 and:

    a. comply with Accounting Standards and the Corporations Regulations 2001, other mandatory professional reporting requirements; and

    b. give a true and fair view of the Group's financial position as of 31 December 2023 and of its performance for the half- year ended on that date; and

2. In the Directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors and is signed for and on behalf of the directors by:

Simon Moore

Simon Moore
Chair
Dated 27 February 2024

GrantThornton

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Independent Auditor's Review Report

To the Members of Alexium International Group Limited

Report on the half year financial report

Conclusion

We have reviewed the accompanying half year financial report of Alexium International Group Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated condensed statement of financial position as at 31 December 2023, and the consolidated condensed statement of profit or loss and other comprehensive income, consolidated condensed statement of changes in equity and consolidated condensed statement of cash flows for the half year ended on that date, a description of accounting policies, other selected explanatory notes, and the directors' declaration.

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the accompanying half-year financial report of Alexium International Group Limited does not comply with the *Corporations Act 2001* including:

a giving a true and fair view of the Group's financial position as at 31 December 2023 and of its performance for the half year ended on that date; and

b complying with Accounting Standard AASB 134 *Interim Financial Reporting and the Corporations Regulations 2001*.

Basis for Conclusion

We conducted our review in accordance with ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*. Our responsibilities are further described in the Auditor's Responsibilities for the Review of the Financial Report section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES *110 Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

Material uncertainty related to going concern

We draw attention to Note 2(d) in the financial report, which indicates that the Group incurred a net loss of $1,962,251 during the half year ended 31 December 2023 and had net cash outflows from operating and investing activities of $488,645. As stated in Note 2(d), these events or conditions, along with other matters as set forth in Note 2(d), indicate that a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Our conclusion is not modified in respect of this matter.

Directors' responsibility for the half-year financial report

The Directors of the Company are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the Directors determine is necessary to enable the preparation of the half-year financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*, in order to state whether, on the basis of the procedures described, we have become aware of any matter that makes us believe that the half year financial report is not in accordance with the *Corporations Act 2001* including giving a true and fair view of the Group's financial position as at 31 December 2023 and its performance for the half-year ended on that date, and complying with Accounting Standard AASB 134 *Interim Financial Reporting and the Corporations Regulations 2001*.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Grant Thornton

Grant Thornton Audit Pty Ltd
Chartered Accountants

M Leivesley

M R Leivesley
Partner – Audit & Assurance

Sydney, 27 February 2024